STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

Office of the Secretary

Phone: (302) 739-9000
Fax: (302) 739-6242

Secretary's Order No. 2008-W-0057

Re: Permit Modification of E. I. DuPont de Nemours & Company's National Pollutant Discharge Elimination Permit for Surface Water Discharges from its Industrial Facility at 104 Hay Road, Edge Moor, New Castle County

Date of Issuance: November 17, 2008
Effective Date: November 17, 2008

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") under *7 Del. C. Chapter 60*, the following findings, reasons and conclusions are entered as an Order of the Secretary. This Order considers the Hearing Officer's Report of Recommendations dated November 12, 2008, ("Report") which, in turn, considers the Department's draft amendment to the National Pollutant Discharge Elimination System ("NPDES") permit the Department's Division of Water Resources, Surface Water Discharge Section ("SWDS") issued to E. I. DuPont de Nemours & Company **(**"DuPont") on November 29, 2006.

The permit modification will resolve DuPont's pending appeal of the November 29, 2006 permit and includes several changes as part of this settlement. Notably, the permit modification removes the numeric limit for dioxins, furans and PCBs. The Department proposed this change based upon new water quality sampling of Delaware River water before and after it is used in DuPont's manufacturing process. The Department's experts reviewed the data and concluded that the numeric limit could be

removed as part of other changes made to resolve the pending appeal. One important change was to triple the amount of monitoring of dioxins, furans and PCBs at both the intake and discharge locations.

The Department held a public hearing on June 18, 2008 based upon the public interest because the Department determined that the requests for a public hearing were not timely. The Department's Senior Hearing Officer prepared a Report without the benefit of a court reporter, but he certifies that it is a reasonably accurate verbatim transcript of the limited amount of oral public comments presented at the public hearing and recommends it be adopted as the verbatim transcript if Section 6006 applies. I agree that a strict reading of Section 6006 that this permit amendment procedure would not be subject to Section 6006's procedures, but the Department as a matter of policy will record oral comments electronically or by a court reporter its public hearings. The oral public comment consisted of only several questions posed by two persons, while most of the public comments were submitted in writing, including during the expanded public comment period. The Department held the public hearing without the presence of a court reporter due to the Department's administrative error, and those present at the hearing agreed to hold the public hearing despite the lack of a court reporter, which was an issue only raised in post-hearing comments by persons who did not attend the June 18, 2008 public hearing. The Report explains the justification for proceeding and cites several legal arguments that allow the public hearing to be held without the preparation of a verbatim transcript by a court reporter. I agree that the lack of a court reporter is unfortunate, but it does not invalidate the Department's action to amend the permit in this Order based upon the circumstances.

I adopt the Report as the Department's verbatim transcript as a reasonably accurate record of the oral public comments. I find that the lack of a court reporter's

transcript does not impair my ability to review the record based upon the circumstances surrounding the June 18, 2008 public hearing, as described in the Report. Moreover, any court will have a verbatim transcript of a *de novo* hearing before the Environmental Appeals Board. The lack of a court reporter to prepare a verbatim transcript does not invalidate the June 18, 2008 public hearing under the circumstances and or Department's action to amend the permit, which is an action that could occur without the public hearing since there was not timely request for a public hearing. I also find and conclude that the circumstances support issuing the permit amendment based upon the Report and the administrative record developed, including the public hearing record from the June 18, 2008 public hearing as set forth in the Report. I adopt the Report and its reasoning and agree that the permit amendment should be issued; however, it should be conditioned upon withdrawal of the pending appeal of the NPDES permit.

In sum, I adopt and direct the following as an Order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding based upon the Department's regulations that allow the Department to make permit amendments as here, which will allow for a compromise settlement to resolve a pending appeal before the Environmental Appeals Board of the NPDES permit that is the subject of this amendment;

2. The Department provided adequate public notice of the proceeding and the public hearing, and held the public hearing in a manner required by the law and its regulations, including the acceptance of the Report as a reasonably accurate verbatim transcript of the oral comments made at the public hearing;

3. The Department considered all timely and relevant public comments in making its determination;

4. The duly authorized Department official shall timely prepare and issue the permit amendment consistent with this Order; and

5. The Department shall provide notice of this Order to the persons affected by this Order, as determined by the Department, including those who participated in the hearing process.

s/John A. Hughes
John A. Hughes
Secretary

HEARING OFFICER'S REPORT

TO: The Honorable John A. Hughes
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Permit Modification of E. I. DuPont de Nemours & Company's National Pollutant Discharge Elimination Permit for Surface Water Discharges from its Industrial Facility at 104 Hay Road, Edge Moor, New Castle County

DATE: November 12, 2008

I. BACKGROUND AND PROCEDURAL HISTORY

This Report considers the administrative record, including the public comments in the public hearing record, and makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control ("DNREC" or "Department") on the proposed modification of the National Pollution Discharge Elimination System ("NPDES") permit that the Department's Division of Water Resources, Surface Water Discharge Section ("SWDS") issued November 29, 2006 to E.I. DuPont de Nemours & Company ("DuPont"). The permit allowed DuPont to continue to discharge treated effluent into the Delaware River from DuPont's titanium dioxide manufacturing facility located at 104 Hay Road, Edge Moor, New Castle County ("Facility").

On December 19, 2006, DuPont filed an appeal of the NPDES permit with the Environmental Appeals Board ("EAB") at Docket No. 2006-09. The appeal challenged two new limits in the NPDES permit, namely, 1) the 5.1 femtograms per liter for "Dioxins and Furans,

Total," or "Total TEQ"[1] and 2) the 5.5 acute toxic units ("TUa") limit for "Acute Whole Effluent Toxicity." DuPont claimed that the Total TEQ limit failed to account for the presence of dioxins, furans and PCBs in the Delaware River water, which DuPont withdraws for use in the Facility's manufacturing process and then discharges back to the Delaware River after treatment. DuPont also challenged the 5.5 TUa limit claiming that the Department should have adopted a 6.9 TUa limit consistent with DuPont's requested change in the size of the mixing zone for the discharge.[2]

The Department engaged in settlement negotiations in an effort to resolve the EAB appeal, particularly on the TEQ limit issue. As part of the settlement negotiation process, DuPont provided on May 8, 2007 water quality sampling and testing that compared test results from the intake and discharge locations in order to assess DuPont's claim on the Total TEQ issue. The Department's experts analyzed this new information and concluded that the Total TEQ limit could be amended, but only if other changes were made to the permit, as set forth in the Department's memorandum prepared by Richard Greene. Consequently, the Department proposed the following permit amendments in order to settle the EAB appeal: 1) deleting the numeric limit for TEQ; 2) reducing to 6.7 TUa the limit for "Acute Whole Effluent Toxicity" based upon the DRBC's approval of the requested mixing zone size change; 3) adding dissolved and particulate organic carbon monitoring at the intake and discharge locations; 4) monitoring

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[1] "Toxic equivalence to 2,3,7,8-TCDD," as defined in Special Condition No. 11

[2] DuPont submitted a requested change on August 14, 2006, which the Department deferred until after any action by Delaware River Basin Commission ("DRBC"). The DRBC approved this change on December 4, 2007 in Docket No. D-71-86-2.

PCBs, dioxins and furans monthly in paired sampling at the intake and discharge locations and annually at stormwater outfalls; 5) revising the Pollutant Minimization Plan's requirements for PCBs, dioxins and furans, as approved by the Department on November 15, 2007, and 6) requiring a dye study. Thus, the Department's experts in SWDS prepared a draft permit with certain changes to resolve the EAB appeal and on November 21, 2007, the Department published public notice of the draft permit.

The public notice required all comments and requests for a hearing to be received by the Department by December 20, 2007. On November 22, 2007, John Austin emailed comments that opposed the permit amendment, but these comments did not request a public hearing. The Department received emails at 7:44 pm and 8:13pm on December 20, 2007 from Alan Muller and Carole Overland, respectively, who submitted identical comments in opposition to removing the TEQ numeric limit and requested a public hearing on behalf of Green Delaware. The Department determined that the requests for a public hearing were not timely because they were received after normal business hours on the day of the deadline. Nevertheless, given the public interest expressed in the comments, the Department decided in May 2008 to hold a duly noticed public hearing on June 18, 2008 at the Department's office at Lukens Drive, New Castle, New Castle County.

Several persons attended the public hearing as shown on the Department's sign-in sheet. Due to an administrative error, there was no court reporter at the public hearing to transcribe the oral comments presented. At the conclusion of the public hearing, a member of the public requested that the public comment period for written comments be kept open, and this request was not opposed. Consequently, I granted an extension until July 11, 2008 for written public

comments. The Department received written post-hearing comments from Glenn Evers, Dr. Denio, Alan Muller and Patricia Gearity.

This Report considers the permit application, relevant information in the Department's files, and the public comments, and applies the applicable laws and regulations in order to make a recommendation to the Secretary on whether to issue a permit or any permit conditions.

II. PUBLIC HEARING RECORD

Due to the Department's administrative error than caused no court reporter to be present at the June 18, 2008 public hearing, this Report shall be the verbatim transcript, which I recommend be adopted by the Secretary under the circumstances presented where: 1) I am able to recall with a reasonable degree of accuracy the extent and nature of the oral public comments made at the June 18, 2008 public hearing and most of the public hearing record consists of documents, 2) the members of the public who attended the June 18, 2008 public hearing all wanted to hold the public hearing without a court reporter, 3) the only objection holding a public hearing without a court reporter is from members of the public who did not attend the June 18, 2008 public hearing, and 4) my legal research that supports that there is no legal requirement that a court reporter prepare a verbatim transcript for this or any Department hearing.

The hearing commenced at approximately 6 p.m. with my announcement that there would be no court reporter to transcribe any oral comments made at the public hearing. I explained that I only realized that no court reporter would be present approximately thirty minutes before the hearing was to commence, and that I contacted the court reporting company to see if a court reporter could be provided, but was told that no court reporter was available on such short notice. Consequently, I informed the public participants the two available options,

namely, either holding the hearing without a court reporter, or continuing the hearing to another night when a court reporter would be available. All members of the public in attendance wanted to proceed forward with the hearing without a court reporter, as did DuPont. In addition, I consulted with DuPont's counsel, Jeremy Homer, who was present. Consequently, based upon the agreement of everyone present at the public hearing, I indicated that we would hold the public hearing without a court reporter.

I proceeded to make preliminary comments that described my role as the hearing officer acting on behalf of the Secretary in the development of an administrative record, including the presiding over public hearing and its record, and to prepare a report of recommendations for the Secretary, who would make the final decision. I spoke of the role of public comments as part of the Department's decision-making process, and then introduced John DeFriece, P.E., who is the Department expert from SWDS who prepared the proposed permit amendment and the current NPDES permit. Mr. DeFriece presented a slide show on the proposed amendment, which presentation lasted approximately ten minutes. The printed version of the presentation is included as an exhibit in the public hearing record. Accordingly, I will not repeat the oral recitation of what he said reading from the information contained on the slides.

The hearing record also contains exhibits based upon certain relevant documents in the Department's files, including the Department's statement of basis for the permit amendment, the Department's statistical analysis of the water quality data comparing the intake and discharge locations, the public notices, and the three written public comments the Department received prior to the public hearing. Other Department representatives present at the public hearing were Robert Chominski, who is assigned to the Department from the United States Environmental

Protection Agency ("EPA"), and Richard Greene, from DWR's Watershed Assessment Section, who provided technical analysis of the water quality data. DuPont had several persons in attendance, but did not make a presentation.

As shown on the sign-in sheet, persons signed up to speak, but only two asked questions following the Department's presentation.[3] Simeon Haan asked why the data showed that less of the contaminants were discharged in the Facility's effluent than were present in the Delaware River before use by DuPont at the Facility. He was told that the Facility had installed processes to reduce the formation of the contaminants in its manufacturing process and that the treatment process also captured contaminants in the solids. Allen Denio, Ph.D., asked how the Facility planned for upset conditions, and emergency shutdowns. He was told that the Facility had plans for the orderly shutdown in a way to minimize any discharges that did not meet the permit's limits. Mr. Denio also asked about increasing the frequency of testing and was told by Mr. DeFriece that the Department was satisfied with the frequency of the reports received and that the proposed permit increased the monitoring and submission of reports to the Department from quarterly to monthly. He added that if pollutants showed up in the samples, then the Department would take action to reduce the pollution. Dr. Denio requested that the public comment period be extended and there was discussion on how long and given the upcoming holiday, the extension was granted to July 11, 2008 after it was not opposed by anyone at the public hearing.

I closed the June 18, 2008 public hearing record, although there was subsequent informal discussion among the participants after the public hearing ended, but those discussions are not

[3] The Department's policy allows the public to ask questions as part of the public comment process.

included in this verbatim transcript consistent with normal procedures when there is a court reporter. The total time in the hearing was approximately fifteen minutes, with only about three minutes of the time spent hearing and responding to the public comments, which were in the form of questions.

Before the July 11, 2008 deadline, the Department received written comments from Mr. Glenn Evers, Dr. Denio, Patricia Gearity and Alan Muller. Mr. Evers provided an extensive written comment in opposition to the removal of the Total TEQ limit. Dr. Denio provided a brief comment that also opposed the removal of the Total TEQ limit. Mr. Muller and Ms. Gearity provided comments on the absence of a court reporter.

I requested SWDS prepare a response to the public comments and this technical response is attached hereto as Appendix A, which provides an excellent discussion of the technical issues raised in the public comments. I adopt this response on why I did not accept the comments that raised technical issues.

III. DISCUSSION AND REASONS

The Department's regulations *Governing the Control of Water Pollution* ("Regulations") allow a NPDES permit to be modified either upon an application to modify a permit submitted pursuant to Section 6.51 or upon the Department's initiative pursuant in Section 6.52. In this case, DuPont did not submit an application to modify the permit. Instead, the Department proposed the modification as a proposed settlement of the pending DuPont's EAB appeal. The Department initiated the draft NPDES permit modification and that it reflects the changes the Department and DuPont reached by mutual agreement as part of the settlement negotiations. I find that the proposed permit modifications entail a mutual agreement, and that this permit

modification, if granted in the final order, should be conditioned upon the withdrawal of the pending appeal. Thus, I find that Section 6.52 applies to this permit modification.

Turning to the substantive changes proposed, I find that the proposed amendment to the NPDES permit is reasonable and supported by sound scientific information, which DuPont provided after the permit was issued. This information allowed the Department to reconsider its prior decision to include a numeric limit for TEQ, and this reconsideration is allowed by Section 8.04d.1(iii) of the Regulations. In addition, another change that occurred after the permit was issued the DRBC's approval of DuPont's revised the mixing zone. Again, this change supports the Department's reconsideration of the TUa limit. Even without these changes, I find that the appeal of the current appeal essentially allows other changes to be made as part of a settlement of the appeal of the current permit. Consequently, the settlement also reflects changes the Department determined were appropriate in order to protect the environment and public health. DuPont accepted these other changes as part of an overall settlement of the EAB appeal. Thus, I find that the permit amendment reflects a reasonable compromise that will resolve the pending EAB appeal, which will save the Department the cost of continued litigation and the risk of an unfavorable outcome.

The most significant issue in the amended permit is the proposed removal of the numeric limit for TEQ. The Department's experts agreed to remove this limit, but only upon DuPont's agreement to triple the monitoring of the pollutants. The Department's position in support of this change is set forth in the Statement of Basis, which provides compelling reasons why the numeric limit is no longer needed in light of the analysis of the new water quality information from the intake and discharge locations. DuPont provided the additional information to support

its position that no TEQ limit should be in its permit. The Department also conducted its own analysis as described in Rick Greene's July 9, 2007 memorandum, which came to the same conclusion. In addition, the Department's experts proposed the following permit conditions as part of the EAB settlement: 1) DuPont should conduct a dye study to quantify the extent of re-entrainment between the discharge and intake, 2) DuPont should implement the Pollutant Minimization Plan the Department approved November 1007, 3) DuPont should add sampling and testing for total suspended solids, and 4) DuPont should add annual testing to the stormwater outfalls.

I find that the removal of the numeric limit is reasonable when it is included along with the other permit modifications the Department's experts recommend as part of the EAB appeal settlement. The removal of the numeric limit also is supported by the Department's analysis of the pollutants, which established that the presence of the pollutants in the Facility's discharge are not from the Facility, but instead are from other sources. I agree in the theory that the current permit should not hold DuPont responsible for possible permit limit violations from pollutants that enter the Delaware River from sources other than the Facility, but the use of Delaware River water makes the determination of responsibility difficult and DuPont should bear the burden of proof to demonstrate no responsibility. In the information provided, DuPont satisfied this burden. I reject the comments that would impose a duty in the NPDES permit to remove pollution in the Delaware River water from sources other than the Facility. Instead, the NPDES permit should regulate only any pollutants added by the Facility. The Department recognizes that the Facility may produce the pollutants, which is why the Department increased the

monitoring at both the intake and discharge locations so that the Department can take appropriate action when necessary for any discharges of these pollutants as a result of the Facility.

The Facility is proceeding with a pollution control strategy[4] to reduce the formation and release of these pollutants in its manufacturing process. The pollution control strategy is reflected in the Pollutant Minimization Plan as a condition to the permit. The permit modification will provide the Department with increased sampling and testing at the intake and discharge locations from quarterly to monthly in order to evaluate the effectiveness of the reductions of pollutants. SWDS' technical memorandum addresses the other issues raised by the public comments, and I adopt the reasons set forth in the memorandum. Thus, increased monitoring and the removal of the numeric limit are reasonable changes to resolve the EAB appeal while still protecting the environment from any undue releases of the pollutants as a result of the Facility's manufacturing process

The only other issue raised by post hearing public comments was whether the Department held a valid public hearing. The validity of the public hearing was challenged by members of the public who did not attend the public hearing in comments submitted after the public hearing. The challenge is based on the fact that there was no court reporter to prepare a verbatim transcript of the oral comments presented at the June 18, 2008 public hearing. The comments cite portions of *7 Del C. Section 6006*, which state that "[a] record from which a verbatim transcript can be prepared shall be made of all hearings and shall, also with the exhibits

[4] The EPA established Total Maximum Daily Load ("TMDL") for polychlorinated biphenyls ("PCBs") and the pollution control strategy in the permit reflects this regulation.

and other documents introduced by the Secretary or other party, constitute the record." I disagree with these comments for several reasons.

First, a complete reading of Section 6006, entitled "Public Hearings," states that is applies to "[a]ny public hearing held by the Secretary concerning any regulation or plan, permit application, alleged violation or variance request…." As noted above, the June 18, 2008 public hearing was held on "any regulation or plan, permit application, alleged violation or variance request…" Instead, the Department acted pursuant to Section 6.52 of its Regulations to modify the permit in order to reflect a settlement of the EAB appeal of the current permit. There is no permit application in the record. Instead, the Department *sua sponte* initiated the permit modification in a manner allowed by its Regulations.[5]

I also find that the June 18, 2009 public hearing was lawful even if Section 6006 applies. Assuming *arguendo* that Section 6006 applies, then I find that the absence of a court reporter does not constitute a fatal procedural error under the circumstances. First, Section 6006 does not require a court reporter to be present to prepare a verbatim transcript. Instead, Section 6006(4) requires that "[a] record from which a verbatim transcript can be prepared shall be made of all hearings and shall, also with the exhibits and other documents introduced by the Secretary or other party, constitute the record." This language clearly allows the Department the discretion to hold a public hearing without a court reporter present so long as there is "a record from which a verbatim transcript can be prepared…." Based upon the circumstances of the June 18, 2008 hearing in which there were few oral comments made, I submit that this Report complies with

[5] I agree that DuPont could have filed an application for a permit modification, and then Section 6006 would have applied, but, as discussed supra, I consider that the public hearing was lawful under the circumstances..

Section 6006 because there will be an adequate record for the available for the Secretary's review based upon this Report and the other documents in the administrative record.

I interpret that Section 6006 allows the preparation of "a record from which a verbatim transcript may be prepared" as allowing other methods to report the oral comments made at a public hearing. Such sources include an electronic recording device, a stenographer taking dictation, or anyone else manually writing or typing, and the memories of those present at the hearing. Unfortunately, due to the unforeseen nature of the lack of a court reporter, I prepared this Report as the verbatim transcript based upon my and the memories of other Department Staff who attended the public hearing. Fortunately, however, the nature and extent of the oral public comments made at the public hearing allow me a degree of confidence that this Report is a reasonably accurate verbatim transcript of the oral comments. I recocognize that this Report is admittedly may not be as precise as a verbatim transcript prepared by a court reporter, but then verbatim transcripts prepared by court reporters are not perfect either. Indeed, many "verbatim transcripts" of Department hearings are filled with mistakes due to the complex and technical nature of the words spoken. Under the logic of those who object to the June 18, 2008 being held without a court reporter, they would prefer accepting a "verbatim transcript" containing wrong words, as opposed to the more accurate recollection of the hearing officer who ultimately is responsible for controlling what is in the record prepared for the Secretary. Under the circumstances, I made the best possible verbatim transcript of the oral comments based upon the assistance of others who were present at the hearing. I certify that this Report is a reasonably accurate verbatim transcript of the oral public comments made at the public hearing.

My ability to prepare a verbatim transcript of the June 18, 2008 public hearing was possible under the circumstances when there were so few oral comments made. This Report does not address a situation where extensive public comments were made, which I agree would be difficult for me or anyone to recall what was spoken with any degree of accuracy. Indeed, most of the public hearing consisted of Mr. DeFriece's reading from his slide presentation. This presentation is part of the written documents in the record and, as such, is equivalent to a verbatim transcript accurately prepared by a court reporter. My recollection only really is needed for the questions asked by two persons following the presentation.[6] The public hearing record includes the written document that contains the presentation, along with the other the written documents consisting of DNREC Exhibits Nos. 1-9. Based upon these specific circumstances with limited oral public comments, I find that this Report will satisfy the requirements of Section 6006 and recommend that it be adopted as the verbatim transcript of the June 18, 2008 public hearing.

Moreover, the Department's public hearing and the oral comments made at a public hearing is part of a larger administrative record available for the Secretary to review in making a decision on a pending permit. The role of the public hearing record as one that supplements the Department's administrative record, which may include often voluminous documents, is supported by the Department's ability to decide matters without any public hearing record. Indeed, a public hearing record is for public comments to supplement the Department's files, not to replace or duplicate the voluminous information that the Secretary may rely on in making a

[6] The Department's policy in recent years has allowed to ask the Department questions at a public hearing, but in prior years the public were allowed only present comments.

decision. Public hearings are only held on most permit applications only upon receipt of a timely and meritorious request for a public hearing, or the Department exercises its discretion to hold a public hearing.

The Department's public hearing are not for the purpose of litigating vested rights, but are conducted in the exercise of the executive authority under subchapter IV of the Administrative Procedures Act, *29 Del C. Chapter 101*. This licensing authority allows for more informal procedures in the conduct of public hearings, which are held solely to receive public comments. In contrast, other administrative agencies may develop their entire administrative record in a hearing and be subject to ex parte considerations for case decisions adjudicated among parties as contemplated by subchapter III. I find that there is an adequate record of the Department's decision-making based upon this Report and the documents in the administrative record for the Secretary to consider in making a decision on the permit modification. For example, most of the substantive comments present into the record were in documents and not in oral comments. These written comments would not have been included in any verbatim transcript prepared by a court reporter. Thus, the post-hearing comments place an undue reliance on the presence of a court reporter to prepare verbatim transcript as the only way to develop a record for the Secretary to consider.

Another reason why I recommend that this Report be considered the verbatim transcript is because then the June 18, 2008 public hearing would be valid consistent with the stated preference of those who attended the June 18, 2008 public hearing. These participants are the only members of the public who really have any standing to complain about the lack of a court reporter. I requested that these public participants express their individual decision on whether

they wanted to hold the public hearing on June 18, 2008 without a court reporter. The public participants agreement I consider to be their waiver of any objection at the hearing. Indeed, none of these participants raised the issue in any post-hearing comments. The agreement by the public participants was one important reason why I proceeded forward with the hearing and did not re-schedule. The irony of the objections from those who were not present is that their argument would effectively ignore the public comments and decision to proceed with the public hearing as made by the public participants who attended the June 18, 2008 public hearing. There was adequate public notice of the June 18, 2008 public hearing as required by Section 6006. My decision relied on the public participants' decision to proceed forward as a waiver of any objection to the procedure. Moreover, I reject any post-hearing objections from person who did not attend the June 18, 2008 public hearing as untimely and without any standing to complain about the hearing's procedures.

My decision to keep the public comment period open after June 18, 2008 for the submission of written comments did not create any right to raise objections to the hearing's procedure from members of the public who did not attend. I did not have to extend the public comment period and if I did not then there would not have been any timely objections to the public hearing's procedures. Second, I extended the public comment period by informing those who attended and did not provide any new public notice of the extension, which is consistent with standard Department procedures. This extension highlights that those public hearing record did not trigger any requirement for a new public notice because it was communicated to those who attended the duly noticed public hearing. This emphasizes the distinction that the Department could have limited the right to submit post-hearing comments to only those who

attended, such as Dr. Denio's, as opposed to the public at large who may learn of the expanded public comment period by informal methods of communication.

I also recommend rejecting Mr. Evers' post-hearing contention that a court reporter's transcript would enable him to submit better post-hearing comments. First, the submission of post-hearing comments is discretionary and should be based upon the underlying permit modification, not information in the public hearing. The purpose of a public hearing is for the public to present comments, not to undertake discovery in order to form their comments. There is ample time before a public hearing to review the Department's files in order to prepare comments for a public hearing. Thus, I find that the lack of a court reporter's preparation of a verbatim transcript did not prohibit submission of post-hearing comments on the permit modification.

As a practical matter, I recommend that the Department not hold another public hearing simply because someone was unable to attend the scheduled public hearing because the Department is facing severe budget constraints. The cost of holding a public hearing is not an insignificant expense, particularly with the cost of a court reporter. Indeed, the presence of a court reporter often is not needed because many of the Department's mandatory hearings are held without any public in attendance or any public comments. There is no need for a court reporter for these hearings and no need for a verbatim transcript of no public comments. The situation of a verbatim transcript to record silence illustrates that a court reporter or even a verbatim transcript is not essential to holding a valid public hearing under Section 6006. Instead, the Department's holds a valid hearing if there has been proper notice and there is a record available to allow the Secretary to review in making his final decision. The Department should

not be required to hire a court reporter when there will be no or few comments that can be easily set forth by the hearing officer's Report, as was the case with the June 18, 2008 hearing.

Finally, I recommend that the June 18, 2008 public hearing be considered as a valid public hearing because the Department had discretion to not hold a public hearing. If the June 18, 2008 public hearing is found to be procedurally deficient by the Secretary or on appeal, I conclude that there is no legal requirement to hold another public hearing. This conclusion is based upon my finding that the Department did not receive a timely request for a public hearing. The two email request that the Department received were received after the close of business on the deadline for such requests. Indeed, there was considerable delay from the deadline for such requests on December 21, 2007 and the June 18, 2008 hearing. The Department decided to hold a public hearing under its own authority to hold a public hearing even where there is no request for a public hearing. Consequently, the June 18, 2008 public hearing was not held based upon a meritorious request for a public hearing, and there is no legal requirement to hold the public hearing, which may make the issue of a lack of a court reporter moot upon any remand because presumably the Secretary can decide not to hold any public hearing on the permit amendment when there is no meritorious request for a public hearing.

The fact that a public hearing was held without a court reporter was regrettable, but I find that the lack of a court reporter's preparation of verbatim transcript is not a fatal procedural error that should invalidate the June 18, 2008 public hearing. I recommend that this Report be accepted to satisfy Section 6006(4) to the extent that it applies to the pending permit modification. Despite the various legal arguments I cite, the Department intended to have a court reporter present in order to transcribe the oral public comments and only an administrative

error caused the failure of a court reporter to appear in order to prepare the verbatim transcript. Such administrative errors have occurred in other hearings and in judicial proceeding. In *City of Pittsburgh v Simmons, 729 F2d 953 (1984),* the Third Circuit in *dicta* stated that "the record taken by a certified court reporter is always the best evidence of what has been said," but the court also recognized that other ways of having a record for review were available. The Court relied upon court rules require a transcript of all statements when requested, but also recognized that a transcript may be waived, as occurred. Moreover, the Department is not the final administrative agency. Instead, this permit could be appealed to the Environmental Appeals Board, which could cure any verbatim transcript defect by its own hearing and verbatim transcript. There will be two administrative records, with a more informal record developed before the Secretary, and a more formal, adjudication record developed before the EAB. *See Application of International Acceptance Company, 280 A.2d 733 (1971).* Thus, the procedural failure of not having a court reporter's transcript should not invalidate the public hearing because it may be cured by the right to develop another administrative agency record before the EAB.

I find and recommend that the Department issue DuPont an amended NPDES permit based upon the draft permit; however, it should be conditioned upon DuPont's withdrawal of the appeal of the permit pending before the EAB.

IV. RECOMMENDED FINDINGS AND CONCLUSIONS

Based on the record developed, including the public hearing record, I find and conclude that SWDS should issue DuPont an amended permit conditioned upon withdrawal of the pending EAB appeal and otherwise consistent with the draft permit as a reasonable settlement of the

appeal of the current NPDES permit. I recommend the Secretary adopt the following findings and conclusions:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;

2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;

3. The Department held a public hearing in a manner required by the law and the Department's regulations and the Hearing Officer's Report reasonably provides a verbatim transcript consistent with Section 6006, if applicable, of the oral comments made at the June 18, 2008 public hearing, and the Report is accepted as a reasonably accurate verbatim transcript of the public hearing under the circumstances;

4. The Department considered all timely and relevant public comments in making its determination;

5. The Department shall issue DuPont a permit subject to the reasonable general and specific permit conditions recommended by SWDS; and

6. The Department shall serve either by mail or email a copy of this Order on each person who participated in the public hearing,

s/Robert P. Haynes
Robert P. Haynes, Esquire
Senior Hearing Officer

October 16, 2008

Memorandum

Subject: Technical Response to Written Comments Regarding the June 18, 2008 Public hearing on the Modification of NPDES Permit for DuPont Edge Moor

From: John R. DeFriece, P.E.
Program Manager I, Discharges Permits Program

Through: R. Peder Hansen, P.E.
Program Manager II, Surface Water Discharges Section

Through: Katherine Bunting-Howarth, J.D., Ph.D.
Director, Division of Water Resources

To: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary

Technical Response to Written Comments

The Department received written comments regarding the June 18, 2008 public hearing for the proposed removal of the numeric limit for "Dioxins and Furans, Total (as TEQ)". John Austin's written comments were included in the public hearing requests from Alan Muller and Carole Overland. The hearing record was held open until July 11, 2008. During that time, Glenn Evers and Dr. Allen Denio provided separate written comments.

The Department's response below addresses those comments within the context of the public hearing. Written comments are addressed below in order of their receipt by the Department. Comments from John Austin, Alan Muller and Carole Overland[1] overlap, and will therefore be addressed together.

Summary

The Department would hope that DuPont Edge Moor is a success story for identifying and greatly reducing a problem. If, as the Department believes, the permittee has reduced its emissions to less than background levels, then the numeric TEQ limit is just not justified and is misdirected effort.

The Department has made a reasonable and well-supported determination to remove the numeric limit for "Dioxins and Furans, Total (as TEQ)"; still the permit includes requirements to triple-check that determination. The proposed permit modification triples

[1] Comments from John Austin, Alan Muller and Carole Overland are, respectively, Hearing Exhibits Nos. 7, 8, and 9.

intake and discharge monitoring for PD&F congeners from quarterly to monthly. As before, the permit also requires a pollutant minimization plan for further elimination of congener discharges, and a dye study to quantify how much, if any, tidal recycling of the discharge to the intake is occurring.

DuPont Edge Moor does have a history of discharging substantial amounts of congeners, but has made a successful effort at source reduction and to change its manufacturing process to greatly reduce formation and subsequent emission of PCB, dioxin, and furan (PD&F) congeners. Data for the last several years do show that the site's discharge contains less PD&Fs than its intake from the Delaware River water.

From consultation with Rick Greene, the Department's expert on PD&F, congener fingerprints of the site's remaining residual discharges do not match the congener fingerprints in the intake water. That is, the site is not getting credit for intake congeners that originated from the site.

Comments from John Austin, Alan Muller and Carole Overland

The comments from John Austin, Alan Muller and Carole Overland[2] were included in the hearing record as Exhibits Nos. 7, 8, and 9, respectively. They raise three general issues that relate to the Public Hearing and the Department's decision regarding deletion of the numeric limit for "Dioxins and Furans, Total (as TEQ)". Those comments/issues are listed and addressed below under the following items numbered 1 through 3.

1. Comment – "Discharge TEQ did exceed intake TEQ for 30 percent of one set of sample pairs and 11 percent of another."

   Response – The Department has reviewed the data, with a view of the issues inherent in extremely low analytical levels, and the long-term average exposure period (70 years) that the human-health water quality standard is based upon. Analytical detection levels for the required PCB congener test method can be as low as 1 to 3 picograms per liter. A picogram is 0.000000000001 gram. At those levels, the slightest sample contamination or air deposition can yield misleading results in an individual sample. The Department has reasonably considered the preponderance of data and other information in evaluating discharge versus intake levels of PD&F.

2. Comment – The Department must consider mass and not just concentrations in comparing discharge and intake PD&F.

   Response – The Statement of Basis discusses the statistical analysis at some length from the site's intake and discharge. The Department has checked and re-checked this analysis, reviewing sample results for DuPont's intake and wastewater discharge for four scenarios:

   a. <u>Concentrations</u>, including an "outlier"

b. Concentrations, excluding the "outlier"
c. Mass balance, including the "outlier" and
d. *Mass balance, excluding the "outlier".*

In careful review of DuPont's data submittal, the Department did discover one data point that had been excluded as an "outlier", without justification provided for that exclusion. In short, inclusion of that outlier did not change the outcome of the review.

For all four scenarios, statistical review showed the overall discharge levels were lower than the intake. The spreadsheet containing those calculations is available upon request.

3. Comment – DuPont Edge Moor is a very big source of PD&F. The site should not get credit for PCB, dioxin, and furan (PD&F) congeners in the intake because they originated from air, water, and land emissions from DuPont sites.

Response -- DuPont Edge Moor has made changes in its manufacturing process that have greatly reduced formation of PD&F.

The congener profile (also known as the congener "fingerprint") in the Delaware River intake does not match the profile of congeners in the DuPont Edge Moor air, land, or water discharges. Rather, the similar profiles of congeners from various locations in the Delaware River is more consistent with an area-wide deposition (that is, air) sources.

Comments from Glenn Evers

With his e-mailed comments, Mr. Evers had attached several studies and background documents to his comments. Those e-mail attachments are available upon request.

Request – "Please provide this information to DuPont and the public record as part of the public hearing. Also, I request that DuPont provide written responses and additional data made available to me and the public record."

Response – Per request, John DeFriece (the permit writer) forwarded Mr. Evers' e-mails to

- Bob Haynes, the Hearing Officer, and
- Both Thomas Andersen and Bart Ruiter at DuPont.

Mr. Evers' comments are addressed below, in the same order as provided.

1) *Comment – In the data set DuPont provided, EPA does recognize **concentration (ug/L)** measurements as a valid argument for dropping dioxin analysis required for*

NPDES permits. The process of proving that the Delaware river contributes more Dioxin & Furans (D&F) than what is discharged by the Edge Moor plant will require that DuPont do a "**mass balance**".

Response – Please see Item 2 under "Comments from John Austin, Alan Muller and Carole Overland".

2) *Comment – DuPont has provided an incomplete analysis of their waste stream.*

Response – Please see Item 2 under "Comments from John Austin, Alan Muller and Carole Overland".

3) Comment – Edge moor water sampling and analysis did not follow EPA testing protocol. In particular the PCB analysis was not standard.

Response – DuPont used EPA Draft method 1668a for PCB congener analysis, which is the analytical method required both by the NPDES permit Special Condition No. 13 and by the DRBC (See http://www.state.nj.us/drbc/PCB_info.htm). The DRBC and the Department requires those PCB monitoring protocols because they are much more sensitive than currently approved EPA testing protocols. This modified method 1668a measures individual congeners of PCBs down to minimum detection levels of **1 to 3 pg/L**. Approved EPA methods under §40 CFR 136 measure mixtures of PCBs, and with much less sensitive detection levels.

PCB Mixture	EPA Method Numbers	Minimum Detection Level (pg/L)	Screening Detection Level (pg/L)
PCB-1242	608	68,000	20,000,000
PCB-1254	625	36,000,000	20,000,000
PCB-1221	608	100,000	20,000,000
PCB-1232	608	100,000	20,000,000
PCB-1248	608	800,000	20,000,000
PCB-1260	608	150,000	20,000,000
PCB-1016	608	40,000	20,000,000

Moreover, using either Method 608 or 625, a sample could have substantial concentrations of PCB congeners but, if they did not match the profile of one of the PCB mixtures listed above, the currently approved methods would still yield "none-detected" as the analytical result.

4) *Comment – DuPont provides a limited data set taken after and about 2004 when the Edge Moor plant was experimenting with production operating conditions exemplifying their best behavior. No supporting data is provided to suggest that the plant was operating under normal conditions when "paired data" was provided*.

Response – The comment is correct in that DuPont did not provide written justification for inclusion or exclusion of specific sample results. This is a common and fundamental question about NPDES permit compliance, the reliance upon data provided by the permittee. In accordance with federal and State regulations, the NPDES permit standard conditions, page 10, under Part I.D., "Monitoring and Reporting", does require

"D. Monitoring and Reporting

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge."

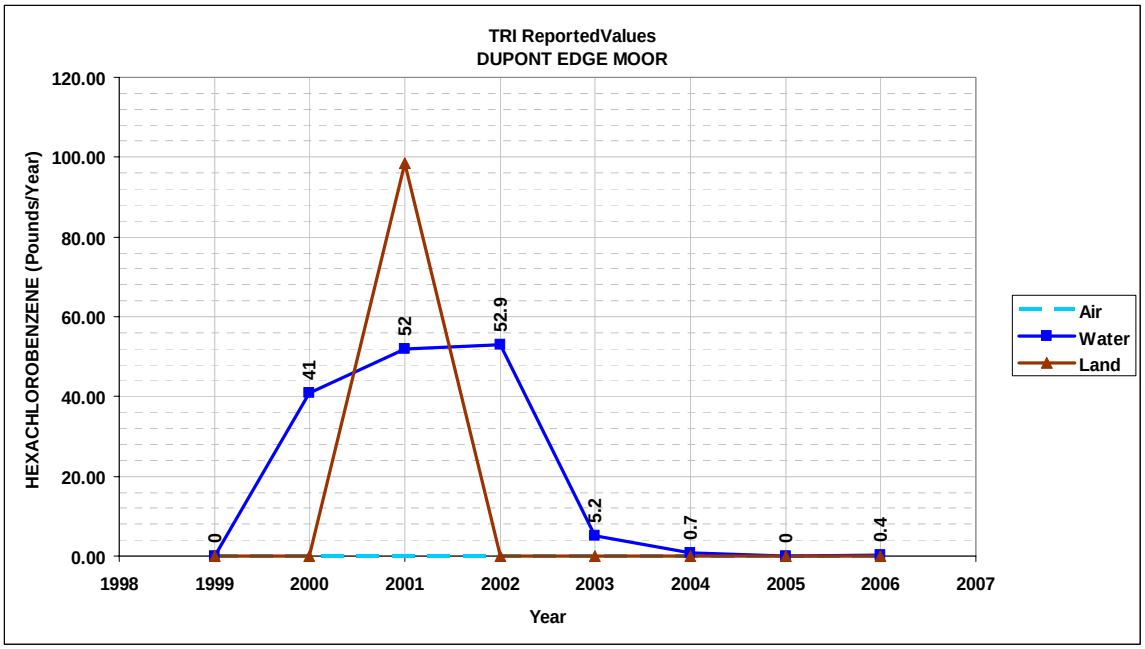
As always under NPDES permitting, the regulatory authority relies on that requirement, provisions for sample splitting, and the enforcement consequences if samples are found to be unrepresentative.

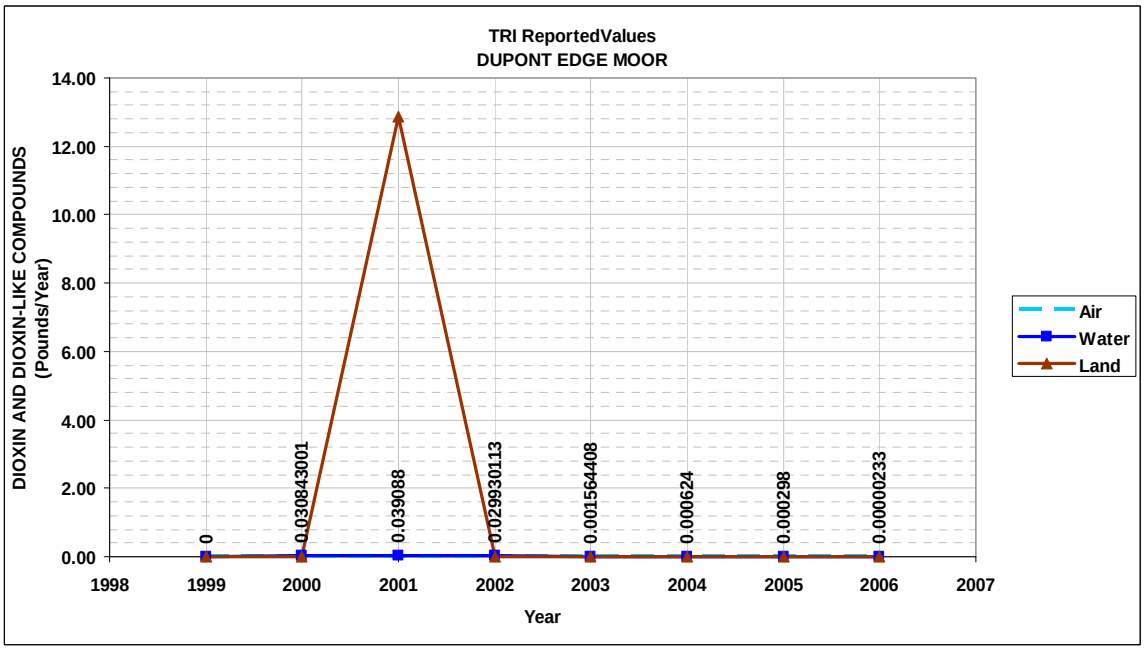
DuPont, the Department, and EPA did discuss "representative samples" in meetings during the data collection and the Department was satisfied that the samples were taken during a reasonably representative time period of the plant's normal operations, although process changes have been made to reduce dioxin formation and improve the recovery in the plant's waste.

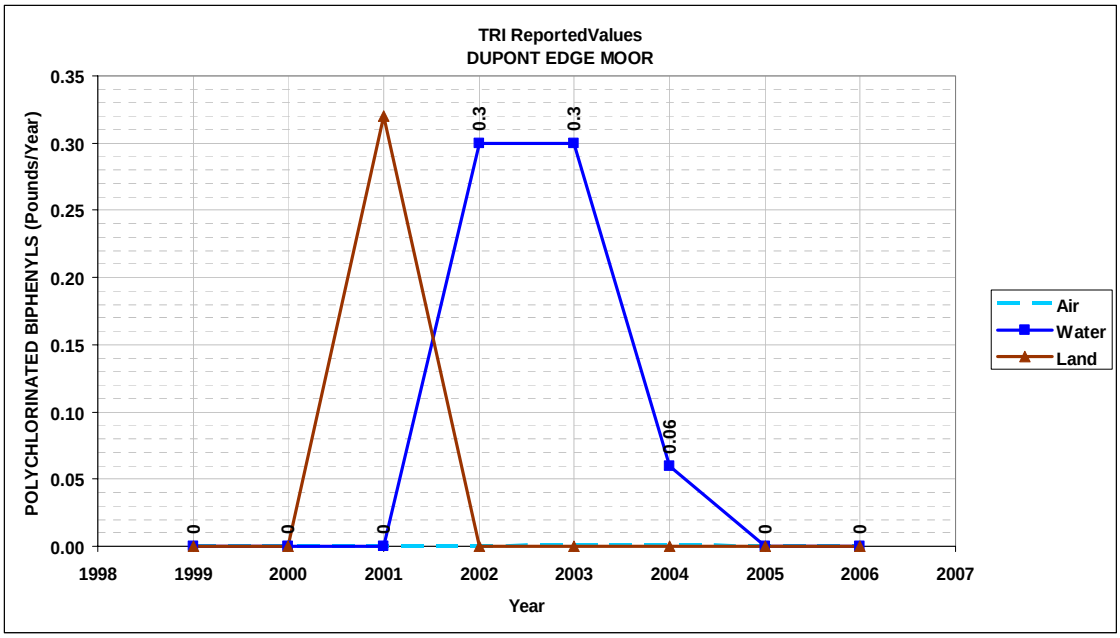
5) *Comment – Edge Moor TRI data (2003 and later) show Dioxin and Dioxin like Chemical reductions without specifying whether the reductions were due to process improvements or a reduced production rates when the TRI data was taken (does less production produces less total D&F TEQ?). No permits were issued for pollution reduction equipment or process modifications that may in fact have produced a larger quantity of a byproduct toxin, namely HCB.*

Response – The reductions of PCBs, dioxins, and furans (PD&F) in the wastewater discharge is due to changes in the manufacturing process to prevent the formation of PD&F, and not due to redirection of those pollutants to either air or land disposal.

The Department currently has no information to indicate that hexachlorobenzene is a pollutant of concern for this NPDES permit and will review this area in the future, but will not delay action on the proposed modification pending such a review. Special Condition No. 4 on page 22 of the permit requires DuPont to submit an updated permit application.


TRI ReportedValues
DUPONT EDGE MOOR
HEXACHLOROBENZENE (Pounds/Year)
120.00
100.00
80.00
60.00
40.00
20.00
0.00
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
0
41
52
52.9
5.2
0.7
0
0.4
Air
Water
Land


TRI ReportedValues
DUPONT EDGE MOOR
DIOXIN AND DIOXIN-LIKE COMPOUNDS (Pounds/Year)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
0
0.030843001
0.039088
0.029930113
0.001564408
0.000624
0.000298
0.00000233
Air
Water
Land



6) *Comment – Edge Moor TRI data (2003 and later) show that hexachlorobenze (HCB) increased significantly. Why? And was this considered for the NPDES permit? HCB is carcinogen with toxicity somewhere between arsenic and PCB.*

Response – Please see Item 5.

7) *Comment – DuPont has not disclosed how they are disposing of Delaware river water dioxins. DuPont contends that they significantly clean the river from dioxins and discharge cleaner water.*

Response – Please see Item 5 above. The Department expects that the congeners removed from the intake water are attaching to the particulates which are removed as sludge by the wastewater treatment process. The sludge is lawfully disposed at Shoesmith Landfill in Virginia under Solid Waste Permit No. 587.

8) *Comment – DuPont does not have a permit for a river water cleaning process.*

Response – As discussed in Items 5 and 6, the facility is preventing formation of congeners, and not removing large amounts of congeners from Delaware River water for disposal via land or air.

9) *Comment – DuPont attorney's claim "**the Total TEQ limitation is impossible to satisfy**". This is a false statement by their own data, just make them comply to whatever they were doing in 2004.*

Response – The Department agrees that compliance with the Total TEQ limit is *possible*. However, as discussed in the Statement of Basis and above, the decision to remove the numeric TEQ limit is not based on that issue anyway, so the point is moot.

10) *Comment – DuPont attorney's claim* ***"the intake water utilized by DuPont contains more Total TEQ than the water discharged."*** *This is a false statement because it is based on a misleading "concentration" analysis not the EPA approved "mass balance".*

Response – Please see Item 2 under "Comments from John Austin, Alan Muller and Carole Overland".

11) *Comment – DuPont attorney's claim "****DuPont's discharge of Total TEQ contributes only a de minimis amount of the Total TEQ loading to the river and does not impact attainment of the water quality standard."*** *This is a false statement because DuPont fails to report a total TEQ mass balance for dioxins around their plant and where it enters the river upstream at different locations.*

Response – Please see Item 2 under "Comments from John Austin, Alan Muller and Carole Overland".

12) *Comment – DuPont attorney's claim "****the proper process for fixing a numeric Total TEQ limitation is the TMDL process.***

Edge Moor produces unique toxins. For example, the PCB' s leaking from transformers are not the same as PCB's from the TiO2 chlorination process. The dioxin toxins bioaccumulate in the fish (DuPont should be required to supply a similar study of fish: DuPont should be required to conduct a similar fish study as well as sample and analyze the river bed before and after the 001 outfall.

Response – The Department, the DRBC and various researchers have been studying congeners in water and in fish tissue from the Delaware River. Congener profiles in the river water intake and in Delaware River fish tissue do not match the congener profile of the DuPont Edge Moor discharge.

13) *Comment – The public was not notified in a public hearing of the 6.9TUa change and the change is unwarranted if we are to believe DNREC Chart 2 plotted data for 2004.*

Response – The Department's notice was reasonably accurate to inform the public of the nature of the public hearing that the NPDES permit may be modified and references the source materials. The Department's proposed change is to a more stringent limit based upon the Permittee's agreement in a settlement.

Comments from Dr. Allen Denio

Dr. Denio's written comments are brief, and so are quoted here.

Comment – "John, This is in response to the duPont permit for dioxin and furans being discharged into the Delaware River from the Edge Moor plant. I attended the DNREC Hearing on June 18 and voiced my concerns at that time. I feel it is a great mistake to remove the numeric effluent limitations from the permit. This sends a message to duPont and other polluters that you will not hold them to strict limits on releases designed to protect the health of our citizens. This is not the message that Gov Minner wants to send to those suffering from the ravages of cancer!! As a retired Professor of Chemistry and a former Chemical Hygiene Officer, I am shocked that DNREC is contemplating this move. I object strongly! Allen A. Denio, PhD"

Response – Far from sending the wrong message, the Department would hope that DuPont Edge Moor is a success story for identifying and greatly reducing a problem. Please see the discussion under "Summary", beginning on page 1 of this document.

Of course, the Department is keenly concerned with causes and effects of cancer. Attachment A is a recent presentation by Rick Greene on PD&F in the Delaware River, and the associated cancer risks. That presentation provides some hint of the scope and effort devoted to PD&F in the Delaware River. That work has very much informed the Department's decision regarding requirements in the DuPont Edge Moor permit.

Attachment A – Dioxins and Furans in Fish

from the Delaware River

A Presentation by Rick Greene of the Delaware DNREC at the Delaware River Basin Commission Co-Regulators Meeting on January 25, 2008.